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February 5th.

Mr. LEA, President, in the Chair.

Thirty-one members present.

The following papers were presented for publication :

"Synonymy of the Cyclades, &c. No. 2. By Temple Prime."

"Synopsis of the Subfamily Clupinæ, with descriptions of new genera, by Theodore Gill."

"Descriptions of twenty-five new species of Unionidæ from Georgia, Alabama, Mississippi, Tennessee and Florida, by Isaac Lea."

And were referred to committees.

February 12th.

Mr. LEA, President, in the Chair.

Forty-five members present.

The following papers were presented for publication :

"Descriptions of new recent shells from the coast of South Carolina, by Edmund Ravenel."

"Synopsis of the Subfamily Percinæ, by Theodore Gill."

"Synopsis generum Rhyptici et affinium, by Theodore Gill."

"Description of a new species of Neritina, from Coosa river, Alabama, by Isaac Lea."

"Descriptions of two new species of Anodonta, from Arctic America, by Isaac Lea."

And were referred to committees.

Dr. LeConte stated in regard to the species of *Anableps*, described in the Proceedings of last month, by Mr. Gill, as *A. Dowii*, that he had seen it in great abundance, not only in the bay of La Union, San Salvador, but in all the streams emptying into the Gulf of Fonseca, and also in the small tributaries of the Rio Lempa, as far as the town of Virtud, a great distance from the ocean. The method of swimming is very peculiar; the fishes are seen in groups on the surface of the water, with their eyes projecting; they are easily alarmed, and very active. They are known to the natives under the name *cuatro-ojos*, in allusion to the transverse black band which divides the iris.

Mr. Gabb remarked that he had recently had an opportunity of conversing with Messrs. Meek and Hayden in regard to the Geological formations of the far West, and of examining the fossils brought by the numerous Government expeditions from that region. He said, "I have seen both the *Gryphæa calceola* and the *Ostrea Marshii*," referred to by Prof. Marcou, in his letter, read to the Academy on December 11th, of last year.

"Prof. Marcou was laboring under a false impression in regard to those species, and thus misled me. The form referred to by Messrs. Meek and Englemann as *G. calceola*, is that figured by Quenstedt on pl. 48, figs. 2, 3 and 4, and called by Roemer *Ostrea calceola*. The form illustrated by fig. 1 of the same plate has never been found. It is even doubtful whether the Western 1861.]

fossil is at all identical with the European species; but it is not sufficiently distinct to warrant a separation with the amount of material collected.

There can be no doubt, however, that this species (even were it found in the same beds with "*G. Tucumcarii*"), is certainly distinct from that species. The principal points of difference are—*G. calceola*(?) is a short abrupt oyster, with a large surface of attachment, and in every instance yet known with the beak totally obliterated. It is found in a bed not only with very different lithological characters, but belonging to a different horizon from those containing the *G. Pitcherii*.

The "plicated oyster, closely allied to *O. Marshii*," is in several important points very distinct from that species. It has been called by Mr. Meek *O. Englemannii*. It is of the type of *O. Marshii*, has strong plications, but differs mainly in the area. I have examined twenty or thirty specimens, and compared them with all the figures of the European species to which I have had access. The area of *O. Marshii* is at least four times as long as that of *O. Englemannii*. There are other characters also which would serve to distinguish them; as yet, the true *O. Marshii* has never been found in America.

Through the kindness of my friend, Dr. Janeway, I have obtained some specimens of *Gryphæa Pitcherii*, from the Indian Territory, near the Choctaw mission, and I believe I now have the means of proving the identity of the true *G. Pitcherii* with the form called by Prof. Marcou, *G. dilatata*, var. *Tucumcarii*.

With the aid of Prof. Marcou's figures, 1 to 3, pl. 4, on one hand, and Dr. Morton's types on the other, I have an unbroken series of gradation from one form to the other. I have exhibited the suite to a number of the best naturalists in Philadelphia, and no one has been able to show a break in the series. Mr. Conrad, after a careful examination, pronounced them to be a regular gradation from one variety to another of the same species.

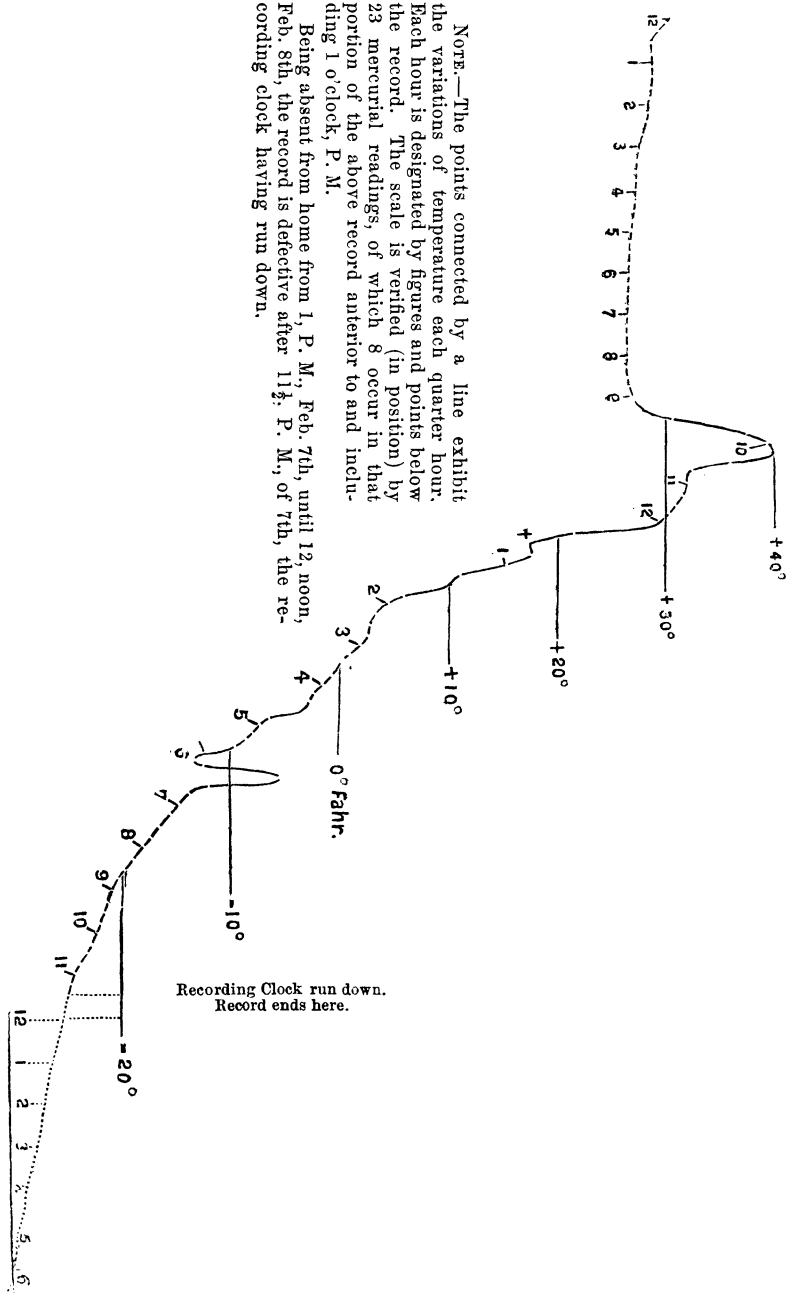
Dr. Morton's original specimens, now lying on the table, as well as the last sentence of his descriptions, show that the beak is "distinctly incurved." Prof. Marcou refers a form to this species in which the beak is strongly deflected. This form, unknown to Dr. Morton, is, I have no doubt, distinct. I have recently gone over the whole subject carefully, with the following results: The oblique, carinated form is a distinct species, and must be called *Gryphæa navis*. The species described by Morton is the same as the one called *Tucumcarii* by Marcou. The small specimen figured by Morton is said by Marcou to be "incomplete and without the superior valve." This is not so. The specimen is a young one, but is very perfect. Dr. Rømer did not see it, because it was lost some time before his visit to Philadelphia, and afterwards discovered by me among some rubbish. The beak and umbone are round, there is no carination, and the figure in the Synopsis will convey a very correct idea of its form. It is as distinctly lobed as the figure 1, pl. 4, of Geology of N. A.

The large specimen, spoken of by Dr. Morton, from the plains of Kiamesha, is more nearly of the form of figure 3 of the same plate. There is every form between the two varieties, viz.: the one figured by Morton in his Synopsis, pl. 15, fig. 9, and the pl. 4, figs. 1 and 2.

I do not wonder that Prof. Marcou should have maintained the difference between *G. Pitcherii* and *G. Tucumcarii* as he understood them, but the key to the difficulty is this: *G. Tucumcarii* is the typical form of *G. Pitcherii*, while *G. Pitcherii*, Marcou, is *G. navis*. This can be proven to any person who will take the trouble of investigating the subject."

Mr. Lea read a portion of a letter from Dr. Lewis, of Mohawk, New York, giving an account of a very sudden and remarkable fall of temperature experienced at that place, on the 7th of February last. The diagram exhibited was an exact copy of the one made at the time, by the self-registering thermometer devised by Dr. Lewis, and to which the attention of the Academy had been called by Mr. Lea at a previous meeting.

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The direction of the wind had been noted during the time of observation, as follows:

Wind east until 9, A. M. From 9, A. M., until 10 $\frac{1}{2}$, A. M., wind S. W. with a little rain. From 10 $\frac{1}{2}$ violent west wind with snow. The clouds gathered like a summer thunder storm. I thought I discovered a faint flash of lightning about 12. Mrs. L. reports to me, that between 6 and 7, P. M., there was a partial remission of the storm. This may account for the sudden elevation of temperature that appears on the record at that time. The greatest violence of the storm was after this time, gradually declining after 11 or 12 o'clock. The snow accompanying this storm was in very fine particles. Probable range of temperature from 10, A. M., 7th Feb., until 8, A. M., 8th Feb., about 70°. Feb. 11th, at 2 $\frac{1}{2}$, P. M., temperature 52°!!

February 19th.

MR. LEA, President, in the Chair.

Thirty-five members present.

A paper was presented for publication, entitled

"Descriptions of new species of Anodonta and Lithasia, by Isaac Lea," which was referred to a committee."

Dr. Slack called the attention of the members to some specimens of mammalia upon the table, viz.:

Anomalurus Beechcroftii (Fraser, P. Z. S.,) 1852, page 11, t. This genus resembles somewhat the American flying squirrel, (*Pteromys*,) but differs in having the greater portion of the tail covered with very short hairs, terminating in a tuft. On the inferior surface of the basal portion are a number of sharp, short spines, projecting downward. These are used by the animal in climbing, somewhat in the manner of climbing irons. This specimen is from Western Africa, collected by Duchaillu.

Belideus flaviventer (*Waterhouse*, Marsupialia, p. 286.) A fine mounted specimen of this species, the Hepoona Roo of the colonists, was exhibited, and the distinction pointed out between the genera *Belideus* and *Acrobates*. This specimen was procured by Dr. Slack of a dealer in Edinburgh, and was said to have been received from New South Wales.

A fine series of the *Aluatta caraya* Slack, (*Simia caraya* Humb., *Mycetes niger* Wied.) Dr. S. stated that the name of *Mycetes* (*Illiger*, *Prodromus*, 1811,) should be replaced by that of *Aluatta*, proposed by Lacepède in his *Tableaux de Classification*, 1799. The series consisted of five specimens, an adult male, entirely black; a very young male and adult female of a golden yellow color; and two nearly adult males, yellow, dashed with black. Two of the specimens were in the collection of the Academy, the others were collected during the recent Paraguay expedition, and are the property of the Smithsonian Institution.

Among the mammals presented by the Smithsonian Institution this evening, he particularized a female of the *Caprovis canadensis* Gray, *Ovis canadensis* Shaw, Nat. Misc., xv., 1790, (*Ovis montana* Ord. Journ. A. N. S., vol. i. page 8, 1817,) and a very large specimen of the *Castor canadensis* Kuhl., measuring three feet five inches from extremity of snout to end of tail.

February 26th.

MR. LEA, President, in the Chair.

Thirty-three members present.

On report of the respective committees, the following were ordered to be printed in the Proceedings:

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